



Fatty Liver & Diabetes

A diet-induced risk-factor for developing Type 2 Diabetes Mellitus (T2DM)



The liver plays an important role in regulating the body's blood sugar levels. As such, the buildup of fat in this vital organ makes it harder to control fasting glucose levels. It also makes the body more resistant to insulin, and strains the pancreas and its beta cells, all of which becomes a risk fact for Type 2 Diabetes Mellitus (T2DM). Non alcoholic fatty liver disease (NAFLD) is attributed to multiple factors including, high-calorie diets with a prevalence of saturated fats, refined carbohydrates, sugar-sweetened beverages, and high fructose intake (1), as well as obesity, physical inactivity, metabolic syndrome and sleep apnea.

Fructose & Fatty Liver

There is increasing evidence that the use of fructose in processed foods, notably high fructose corn syrup (HFCS), may contribute to fatty liver disease. Although glucose and fructose are both sugars, they are metabolised differently by the body. High consumption of fructose may contribute to steatosis (fatty change) and / or a higher accumulation of fat in the liver than with glucose (2). Fructose co-administration alongside a daily high-fat intake promoted hepatic fat content and could be considered a risk factor for speeding up fatty liver disease (3).

Diet & Nutrition

There is no cure or singular treatment for fatty liver disease, however it can be supported with dietary and lifestyle recommendations to manage dietary sugar intake, blood glucose regulation and insulin resistance. BANT nutrition practitioners assess and identify potential nutritional imbalances to understand how these may be contributing to adrenal imbalances and will optimise the diet accordingly to restore balance.

^{3.} Acute responses of hepatic fat content to consuming fat, glucose and fructose alone and in combination in non-obese nondiabetic individuals with non-alcoholic fatty liver disease. Kovar, J ; Dusilova, T ; Sedivy, P ; Bruha, R ; Gottfriedova, H ; Pavlikova, P ; Pitha, J ; Smid, V ; Drobny, M ; Dezortova, M ; Hajek, M. Journal of physiology and pharmacology : an official journal of the Polish Physiological Society. 2021;72(1)



^{1.} Dharmalingam, Mala, and P Ganavi Yamasandhi. "Nonalcoholic Fatty Liver Disease and Type 2 Diabetes Mellitus." Indian journal of endocrinology and metabolism vol. 22,3 (2018): 421-428. doi:10.4103/ijem.IJEM_585_17

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